

## Unit : Chemistry Learning Expectations

1. Recognize and test for the physical and chemical properties of various substances.
2. Identify common gasses based upon the results of prescribed gas tests.
3. Recognize some of the major advancements in atomic theory (particle theory).
4. Describe the Bohr-Rutherford model of the atom and the characteristics of protons, neutrons and electrons.
5. Draw Bohr-Rutherford diagrams for the first 20 atoms of the periodic table.
6. Distinguish between elements and compounds, atoms and molecules.
7. Demonstrate an understanding of the term “isotope”.
8. Describe the characteristic physical and chemical properties of common elements and compounds.
9. Recognize the similarities between elements of the same family and the trends across periods of the periodic table.
10. Identify and use the symbols for common elements and the formulae for common compounds.

### Unit Homework

**Define** each term below in your own words and provide an example or diagram when applicable.

matter	halogens	solubility
particle theory/ atomic theory	noble gases	valence electrons
theory	clarity	stable octet
element symbol	lustre	ionic bond
atomic mass unit	viscosity	ionic compound
isotope	melting point/boiling point	molecular compound
periodic table	conductivity	covalent bond
chemical family/ group	ductility	chemical formula
period	malleability	Law of Conservation of mass
alkali metals	combustibility	precipitate
alkaline earth metals	density	diatomic molecule

**Compare:** For each of the following groups of terms state at least one similarity and one difference between them. Ensure that your answer shows clearly your understanding of the terms.

- |                                            |                                                   |
|--------------------------------------------|---------------------------------------------------|
| a. atomic number and mass number           | g. qualitative property and quantitative property |
| b. atoms and molecules                     | h. observation and inference                      |
| c. elements and compounds                  | i. neutral atom and ion                           |
| d. proton, neutron and electron            | j. reactants and products                         |
| e. metal, non-metal and metalloid          | k. physical change and chemical change            |
| f. physical property and chemical property | l. pure substance and mixture                     |

### **Science Perspectives Text Questions # (Ch.5, 6, 7)**

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read pgs. 208-214 **pg. 215 # 1, 4, 8, 9**

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**Unit Test:** \_\_\_\_\_